KONAMI®

2 or 4 Player Dip Switch Adjustable

METAMORPHIC FORCE™

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Service & Parts #

708-215-5100

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INSTRUCTION MANUAL

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Part No. 224400

METAMORPHICFORCE PARTS LIST

Part #	Description
224003	PCB
224100	Control Panel Overlay
224101	Player Instructions
224200	Marquee
224300	Upper Side Decal
224301	Lower Side Decal
224400	Manual
30255	Red Buttons
30256	Yellow Buttons
30258	Blue Buttons
30259	Green Buttons
30261	Micro Switches
30262	Palnuts
30335	Joysticks
40901	Speaker Harness
40906	3 & 4 Player Harness

METAMORPHICFORCE WIRING HARNESS

***JAMMA HARNESS NOT SUPPLIED**

Solder Side			Parts Side
GND	A	1	GND
GND	B	2	GND
+5V DC	C	3	+5V DC
+5V DC	D	4	+5V DC
NOT USED	E	5	NOT USED
+12V DC	F	6	+12V DC
*KEY	H	7	*KEY
(EMPTY)	J	8	COIN COUNTER
(EMPTY)	K	9	(EMPTY)
SPEAKER (–)	L	10	SPEAKER (+)
(EMPTY)	M	11	(EMPTY)
VIDEO GREEN	N	12	VIDEO RED
VIDEO SYNC	P	13	VIDEO BLUE
(EMPTY)	R	14	VIDEO GROUND
(EMPTY)	S	15	TEST SWITCH
COIN 2	T	16	COIN 1
*2P START	U	17	1P START*
2P UP	V	18	1P UP
2P DOWN	W	19	1P DOWN
2P LEFT	X	20	1P LEFT
2P RIGHT	Y	21	1P RIGHT
2P ATTACK	Z	22	1P ATTACK
2P JUMP	a	23	1P JUMP
NOT USED	b	24	NOT USED
NOT USED	c	25	NOT USED
NOT USED	d	26	NOT USED
GND	e	27	GND
GND	f	28	GND

(BASE COLOR/LINE COLOR)

*Start buttons are not used with 4 player 4 coin slot setting. See page 5.

METAMORPHICFORCE SUB HARNESS (For 3 Players & 4 Players)

CN3 3P CONTROLS

1	Coin 3
2	Empty
3	3P Left
4	3P Right
5	3P Up
6	3P Down
7	3P Attack
8	3P Jump
9	Not Used
10	3P Start*
11	Empty
12	Empty
13	Empty
14	Ground
15	Ground

CN4 4P CONTROLS

1	Coin 4
2	Empty
3	4P Left
4	4P Right
5	4P Up
6	4P Down
7	4P Attack
8	4P Jump
9	Not Used
10	4P Start
11	Empty
12	Empty
13	Empty
14	Ground
15	Ground

*Start buttons are not used with 4 player 4 coin slot setting.

TECHNICAL INFORMATION

(1) Required power capacity
GND-Vcc 5V 4A or more
GND-(+12V)
*See the Wiring Diagram.
(2) Output
R (red) analog, positive
G (green) analog, positive
B (blue) analog, positive
SYNC. H-V complexed, negative
(3) The monitor should be installed horizontally.
(4) There is no sound volume knob on the PCB. Sound level should be adjusted in the Manual Test mode. (See page 5.)
(5) Handle with care.

PLAYING INSTRUCTION

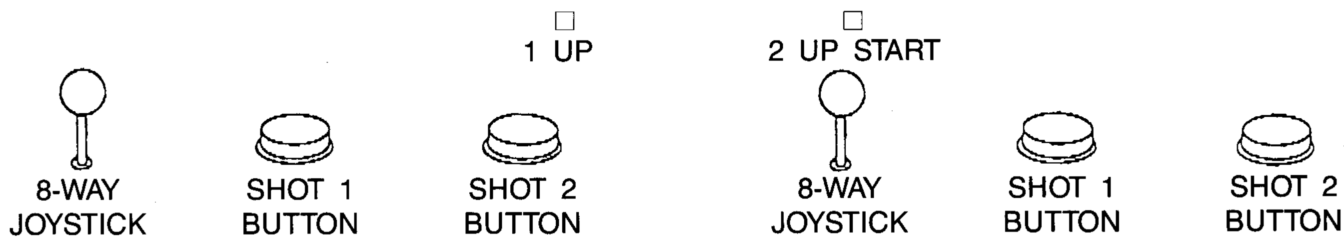
- This game can be adjusted for both 2 Player or 4 Player simultaneous play mode. Choose which mode you would like with the DIP Switch, when installed on site. (See page 8 on DIP Switch setting.)
- In 2 Player mode select the character you want to control on the screen. In 4 Player mode the control panel against the cabinet dictates the character you will control.
- Player(s) can join in at any time. You can continue to play by depositing additional coin(s) when the game is over.
- The character's energy is decreased when damaged by enemy's attack. When the energy points reach 0, the game is over. The quantity of energy you will get by depositing 1 coin can be adjusted in the GAME OPTION. You can also collect bonus points as well as more energy when depositing coin(s).
- By getting item(s) that appear during the game, you obtain a special bonus, like regaining energy, etc.
- The biggest feature of this game is the metamorphoses of characters into Beasts by getting Statues. At this point they can become the strongest Golden Beast by getting additional Statues.
- When characters change into Beasts there appears a "Beast Energy Meter." When this meter reaches the bottom the character dies, unless you deposit additional coin(s) to continue to play (this makes your character human again).

HOW TO CONTROL

- Control your character's movements by using the 8-way Joystick.
- Attack enemies with BUTTON 1. Combination of movement and/or timing of Joystick and BUTTON 1 makes the character attack in special ways.
- Press BUTTON 2 to make your character JUMP. Pressing both buttons enables character to make special attacks.

CONTROL PANEL INFORMATION

- Use control panel with sufficient sets (2 or 4) of an 8-way Joystick and 2 buttons for each player. If the setting is COMMON coin slot mode, SHOT button can be used as START button.



SELF TEST

Normal: "OK" will be displayed. Then the game will start.

Abnormal: "BAD" will be displayed and self test will repeat. If "VERSION ERROR" is displayed, switch off and switch on again while continually pressing down on the TEST SWITCH on the PCB. Switching on with TEST SWITCH pressed causes the settings of the manual test to be initialized to default.

MANUAL TEST

(1) HOW TO START

After switching on the power, press the TEST SWITCH on the PCB or on the cabinet, and you will get the MAIN MENU of the Manual Test.

NOTE: Switching on with TEST SWITCH pressed causes the program in the EEPROM to be initialized to default.

(2) HOW TO RETURN TO THE GAME MODE

Select "GAME MODE" on the MAIN MENU then press Player 1 SHOT 1 button to return to the game mode.

(3) ITEMS AND HOW TO SELECT

Use player 1 JOYSTICK to move arrow to desired test and press player 1 SHOT button to initiate testing. Press player 1 SHOT button during or at the end of each test to return to the MAIN MENU.

MAIN MENU	
I/O CHECK	
SCREEN CHECK	
COLOR CHECK	
MASK ROM CHECK	
GAME OPTIONS	
COIN OPTIONS	
SOUND OPTIONS	
DIP SWITCH OPTIONS	
GAME MODE	...Return to GAME MODE
PLAYER 1 JOYSTICK=SELECT ITEM	
PLAYER 1 SHOT=DO CHECK	

(4) EXPLANATION OF THE ITEMS
The following screen below will appear. Select item to be modified with Player 1 JOYSTICK up/down and move JOYSTICK right/left to modify setting. Factory settings are shown in green, and modified results in red. After modification is completed, select "SAVE AND EXIT" and press Player 1 START button to save and return to MAIN MENU.

* If you select "EXIT" instead of "SAVE AND EXIT" after modifying some settings, the message appears; "YOU DID NOT SAVE. DO YOU WANT TO SAVE? YES/NO." When you choose "YES," the screen shows "NOW SAVING" and returns to MAIN MENU. If you select "NO," "NO MODIFICATION" is shown and then MAIN MENU appears.

1. I/O CHECK
   Check the JOYSTICK and all buttons to see "1" when switched on. Press Player 1 and 2 SHOT buttons at the same time to return to MAIN MENU.
2. SCREEN CHECK
   Adjust focus, alignment, size, etc. using the cross-hatch screen.
3. COLOR CHECK
   Adjust color brightness so that the specified area will be colorless.
4. MASK ROM CHECK
   Roms will be checked one after another, and the message "OK" or "BAD" will be displayed on the screen.
5. GAME OPTIONS
   The following screen below will appear.

GAME OPTIONS		
PLAYER'S ENERGY LEVEL	100	...Player's energy level for 1 coin (50 to 400)
DIFFICULTY LEVEL	4/MEDIUM	...Select out of 8 levels
VIDEO SCREEN FLIP	NORMAL	..."NORMAL" or "UPSIDE DOWN"
LOOP SETTING	GAME OVER AFTER SECOND ROUND	..."GAME OVER AFTER FINAL STAGE" "GAME OVER AFTER SECOND ROUND" or "ENDLESS"
FACTORY SETTINGS		...Returned to factory settings
SAVE AND EXIT		
EXIT		
PLYR 1 JOYSTICK UP/DOWN=SELECT OPTION JOYSTICK RIGHT/LEFT=MODIFY SETTING		

(Settings above are not always the factory settings.)

(6) COIN OPTIONS

When you select this item, the following screen will appear. The specifications are for COMMON coin slot (DIP SW2 off) and for INDEPENDENT coin slot (DIP SW2 on).

(INDEPENDENT)

COIN OPTIONS		
COIN MECHANISM	INDEPENDENT	...Indication for INDEPENDENT setting. Modified with DIP Switch.
PREMIUM START	NO	...Set for PREMIUM START. "NO" or "YES 1" to "YES 4."
STARTING	1 COIN 1 CREDIT	...Set the number of credit for Start and Continue (1-8).
CONTINUATION	1 COIN 1 CREDIT	
FACTORY SETTINGS		Same as above "GAME OPTION"
SAVE AND EXIT		
EXIT		
PLYR 1 JOYSTICK UP/DOWN=SELECT OPTION JOYSTICK RIGHT/LEFT=MODIFY SETTING		

(COMMON)

COIN OPTIONS		
FREE PLAY	NO	...Set for Free Play. "YES" or "NO"
COIN MECHANISM	COMMON	...Indication for COMMON setting. Modified with DIP Switch.
COIN SLOT 1	1 COIN 1 CREDIT	...Set the number of credit for Start and Continue (1-8).
COIN SLOT 2	1 COIN 1 CREDIT	
FACTORY SETTINGS		Same as above "GAME OPTION"
SAVE AND EXIT		
EXIT		
PLYR 1 JOYSTICK UP/DOWN=SELECT OPTION JOYSTICK RIGHT/LEFT=MODIFY SETTING		

*COIN SETTING OPTIONS

COIN(S)	1	1	1	1	1	1	1	2	2	2	3	3	3	4	4	4
CREDIT(S)	1	2	3	4	5	6	7	1	3	5	1	2	4	1	3	5

(7) SOUND OPTIONS
The following screen below will appear.

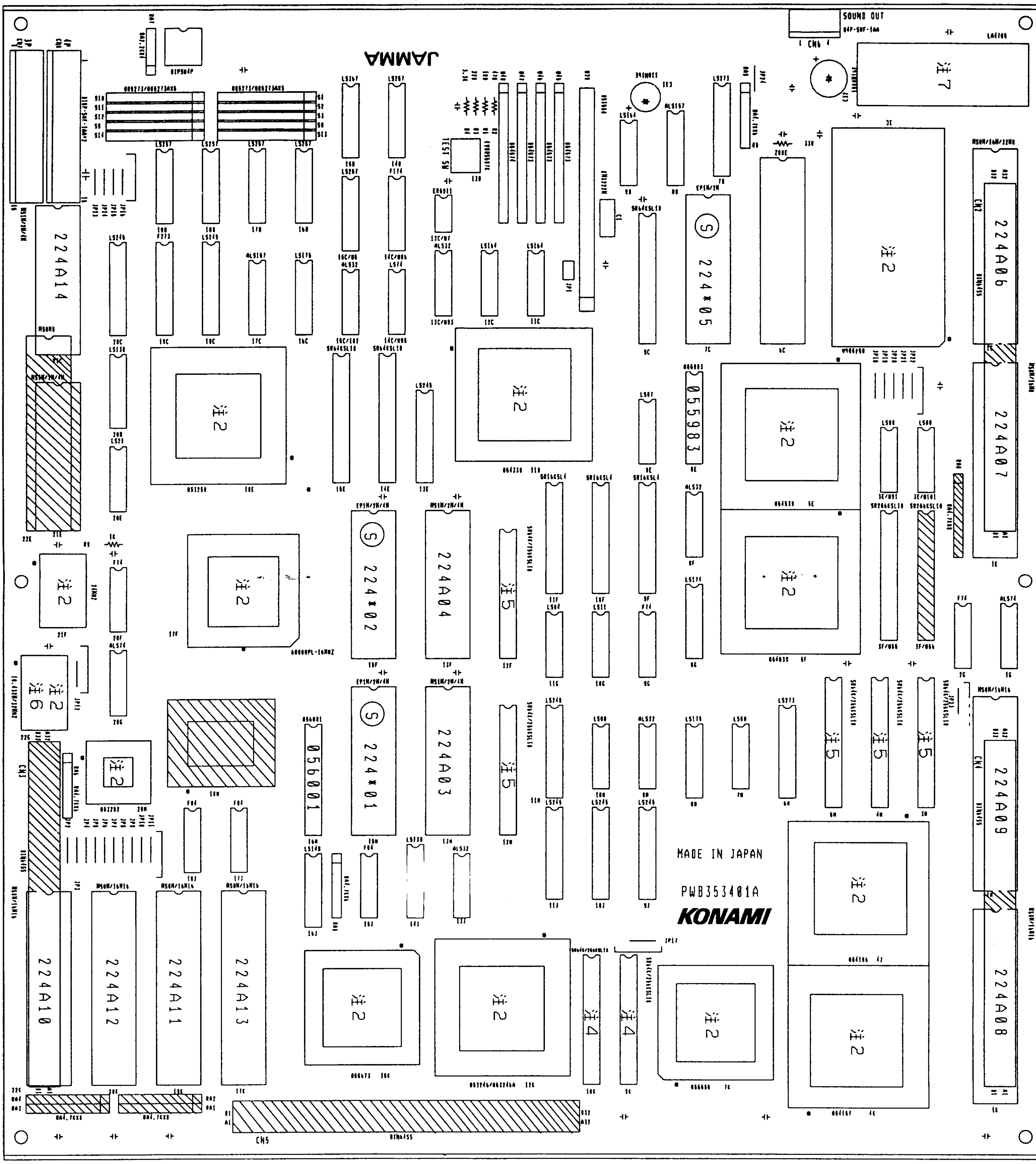
Screen	Description
SOUND OPTION	
SOUND IN ATTRACT MODE ALL THE TIME	...Select out of the following 4 types "ALL THE TIME," "ONCE EVERY 3 CYCLES," "ONCE EVERY 5 CYCLES," "COMPLETELY OFF"
SOUND SCALE CHECK	..."Do re mi...do" will sound
SOUND VOLUME=25	...Sound Volume adjustment (0-29)
FACTORY SETTING	...Returned to Factory Settings
SAVE AND EXIT	
EXIT	
PLYR 1 JOYSTICK UP/DOWN=SELECT OPTION	
JOYSTICK RIGHT/LEFT=MODIFY SETTING	

(Settings above are not always the factory settings.)

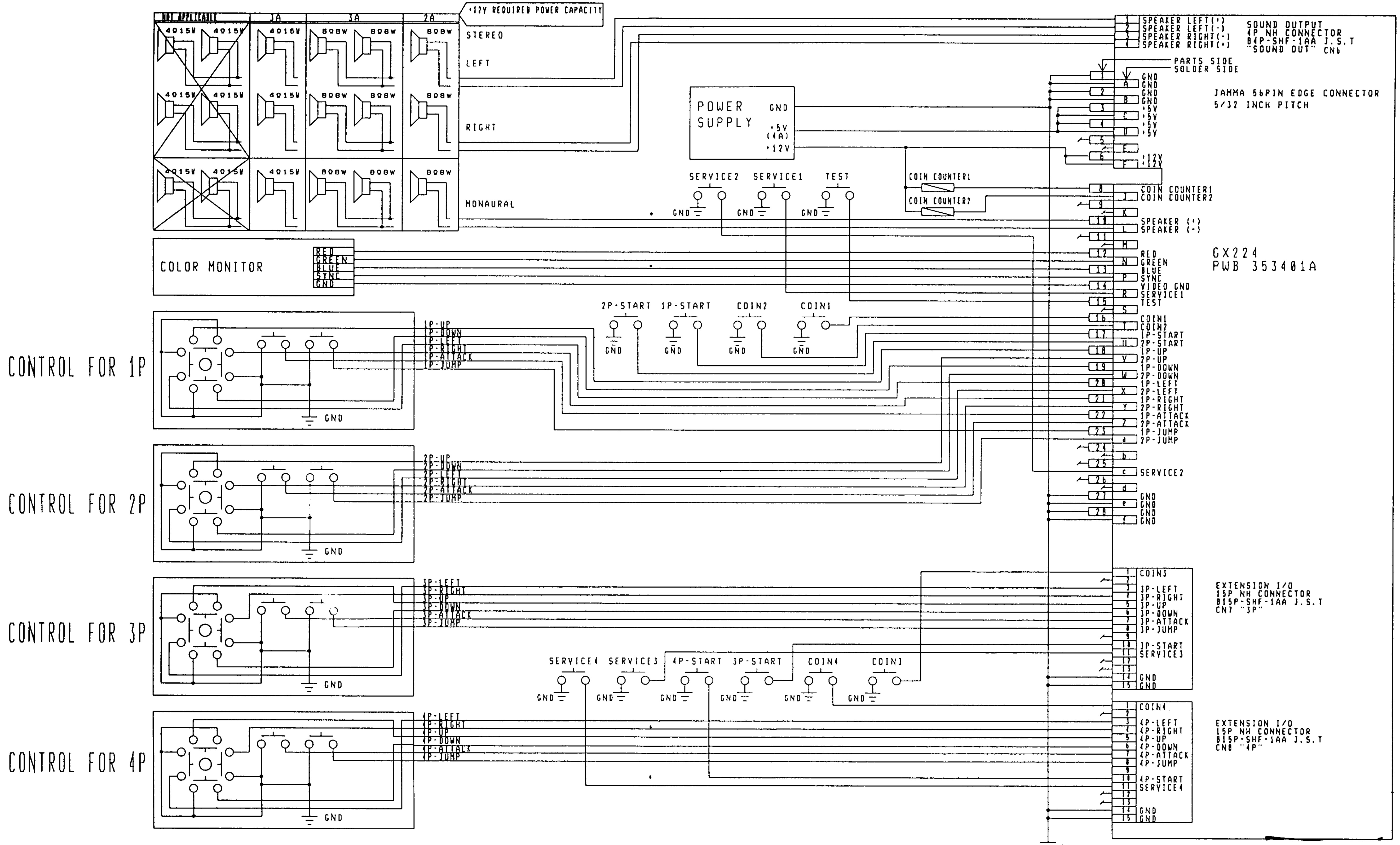
(8) DIP SWITCH SETTING
You can check the settings of DIP SWITCH at this item. You can change the settings with DIP SWITCH as per the following:

DIP SWITCH	CONTENTS	DIP SW/ON	DIP SW/OFF
SW1	SOUND OUTPUT	STEREO	MONAURAL
SW2	COIN SLOT SET	INDEPENDENT	COMMON
SW3	NUMBER OF PLAYERS	4P	2P
SW4	ADD COIN(s) DURING PLAY	POSSIBLE	IMPOSSIBLE

MetamorphicForce PCB LAYOUT



METAMORPHIC FORCE WIRING DIAGRAM



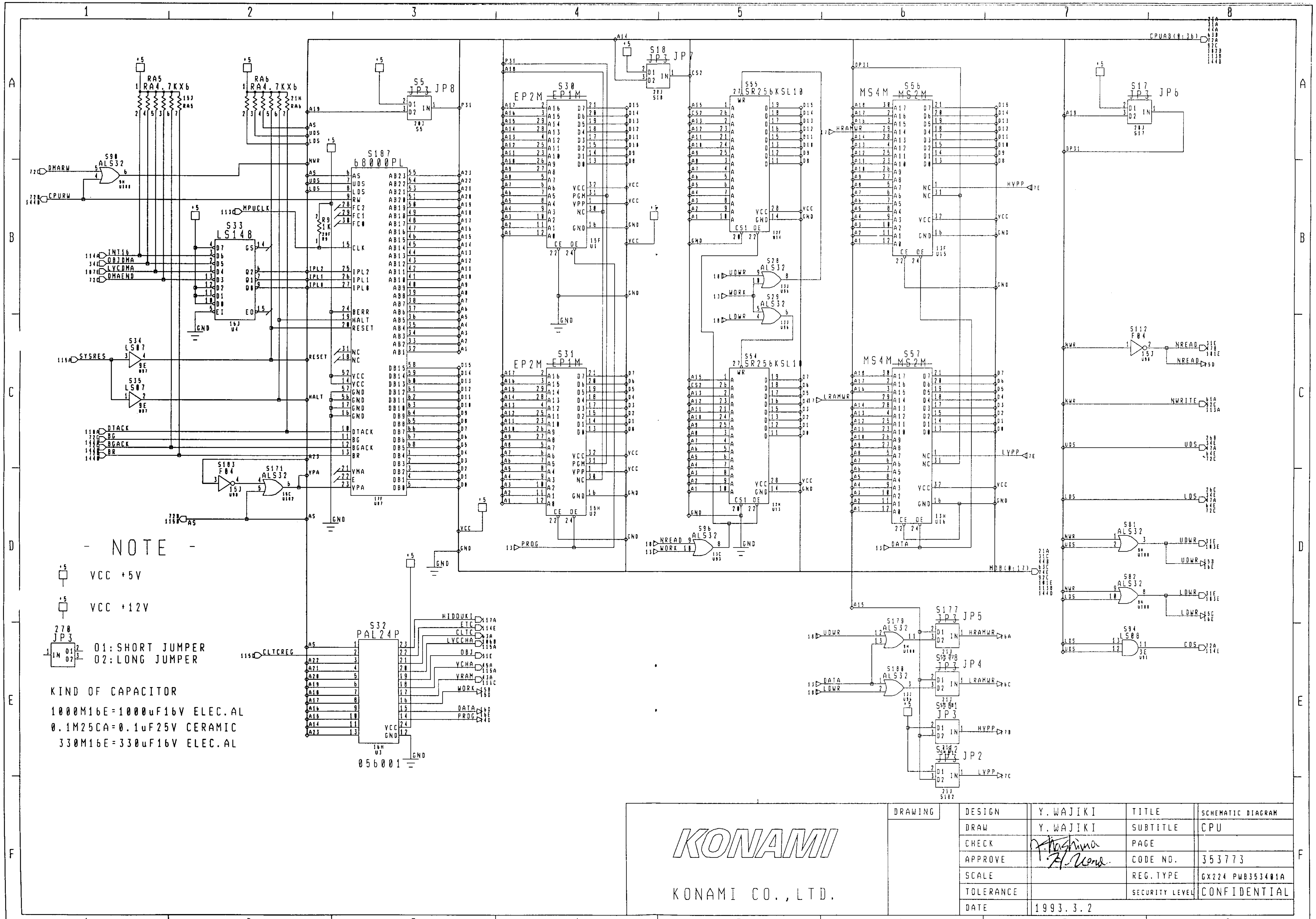
- NOTE -

(1) 1P:NO.1 PLAYER 2P:NO.2 PLAYER
3P:NO.3 PLAYER 4P:NO.4 PLAYER

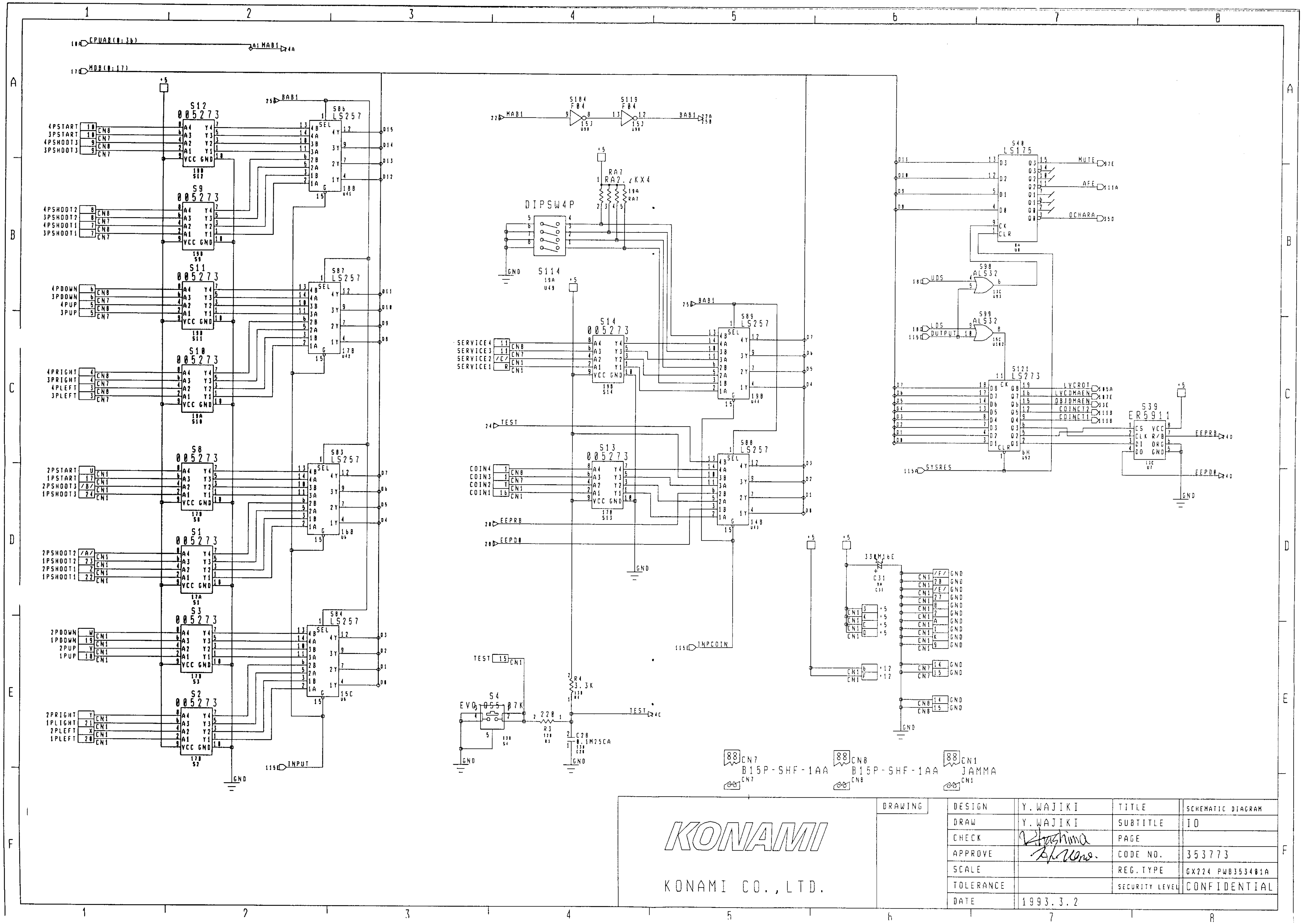
(2) SURGE KILLER DIODES FOR COIN COUNTER INSTALLED ON THE PCB.

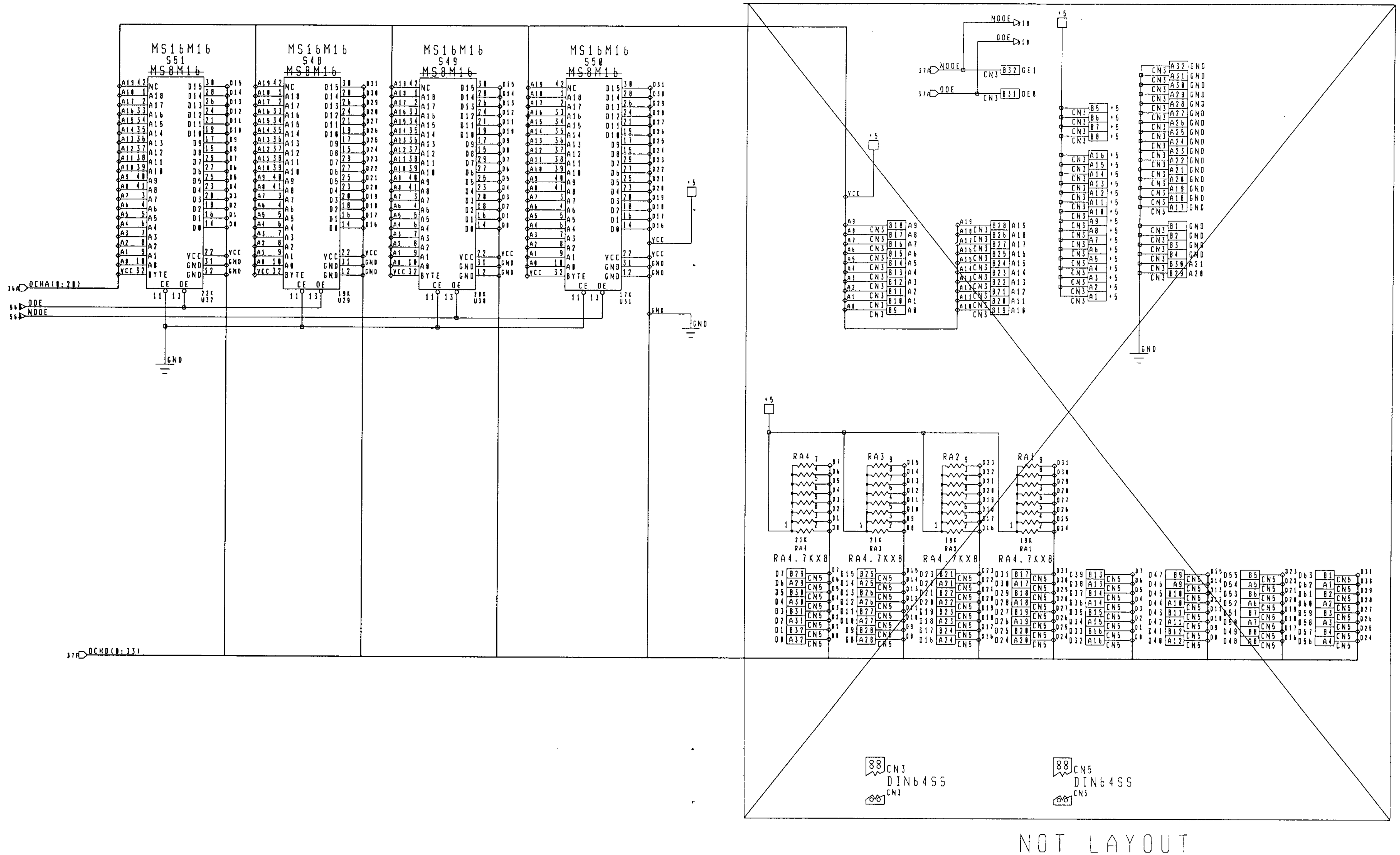
(3) YOU CANNOT USE BOTH STEREO AND MONAURAL OUTPUTS AT THE SAME TIME.

(4) DO NOT CONNECT SPEAKER(-) TO GND.
SPEAKER(-)



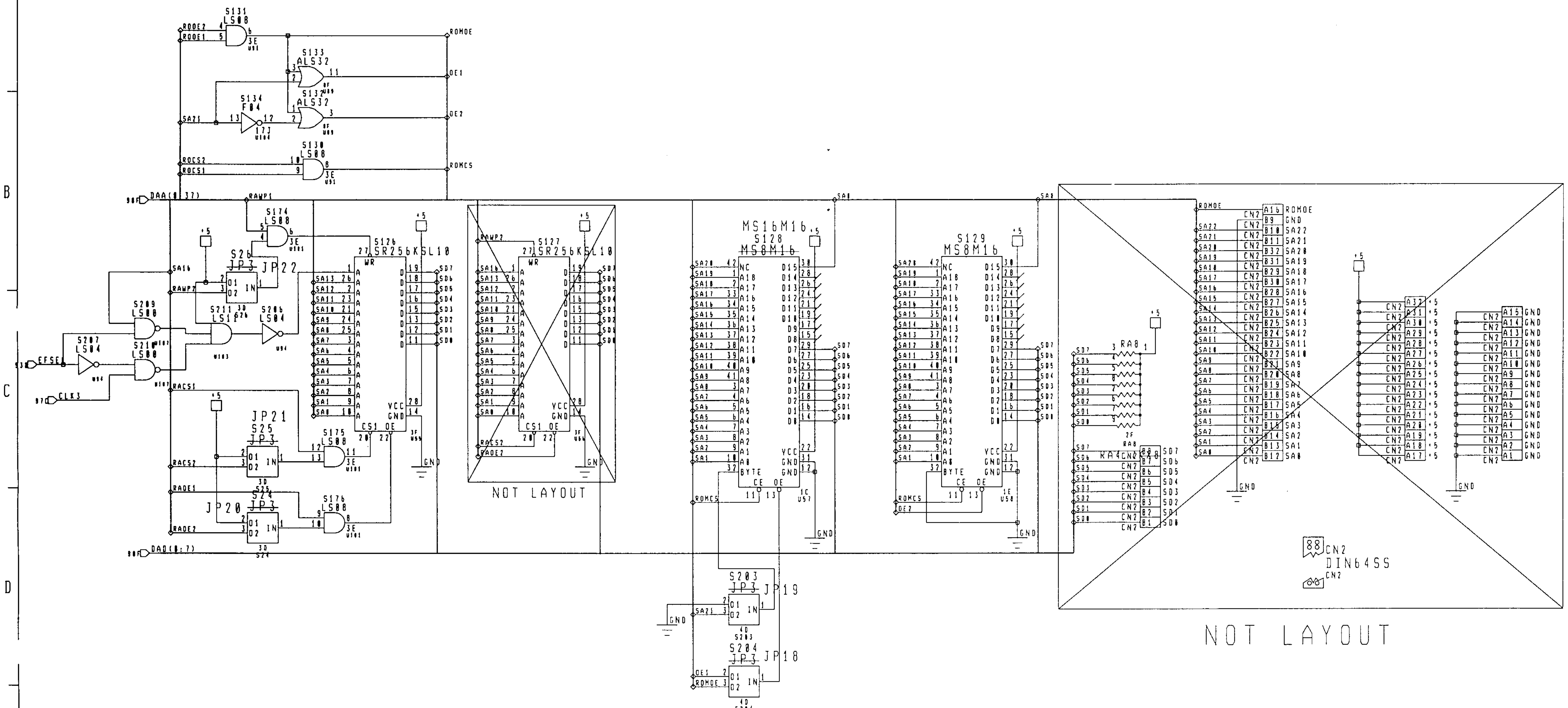
- NOTE -
VCC +5V
VCC +12V
JP3
01: SHORT JUMPER
02: LONG JUMPER
KIND OF CAPACITOR
1000M16E=1000uF16V ELEC.AL
0.1M25CA=0.1uF25V CERAMIC
330M16E=330uF16V ELEC.AL
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DRAWING
DESIGN Y.WAJIKI
DRAW Y.WAJIKI
CHECK
APPROVE
SCALE
TOLERANCE
DATE 1993.3.2
TITLE SCHEMATIC DIAGRAM
SUBTITLE CPU
PAGE
CODE NO. 353773
REG.TYPE GX224 PWB353401A
SECURITY LEVEL CONFIDENTIAL


CPUAB(0:36)
MAB1
MDB(0:17)
BAB1
005273
LS257
4PSTART
3PSTART
4PSHOOT3
3PSHOOT3
4PSHOOT2
3PSHOOT2
4PSHOOT1
3PSHOOT1
4PDOWN
3PDOWN
4PUP
3PUP
4PRIGHT
3PRIGHT
4PLEFT
3PLEFT
2PSTART
1PSTART
2PSHOOT3
1PSHOOT3
2PSHOOT2
1PSHOOT2
2PSHOOT1
1PSHOOT1
2PDOWN
1PDOWN
2PUP
1PUP
2PRIGHT
1PLIGHT
2PLEFT
1PLEFT
INPUT
GND
DIPSW4P
S114
F04
SERVICE4
SERVICE3
SERVICE2
SERVICE1
COIN4
COIN3
COIN2
COIN1
TEST
EEPR0
EEPD0
INPCOIN
EVQ-055-07K
3.3K
0.1M25CA
LS175
MUTE
AFE
OCHARA
UDS
LDS
OUTPUT
ALS32
LS273
LVCROT
LVCDMAEN
OBJDMAEN
COINCT2
COINCT1
ER5911
SYSRES
EEPR0
EEPD0
B15P-SHF-1AA
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SECURITY LEVEL CONFIDENTIAL



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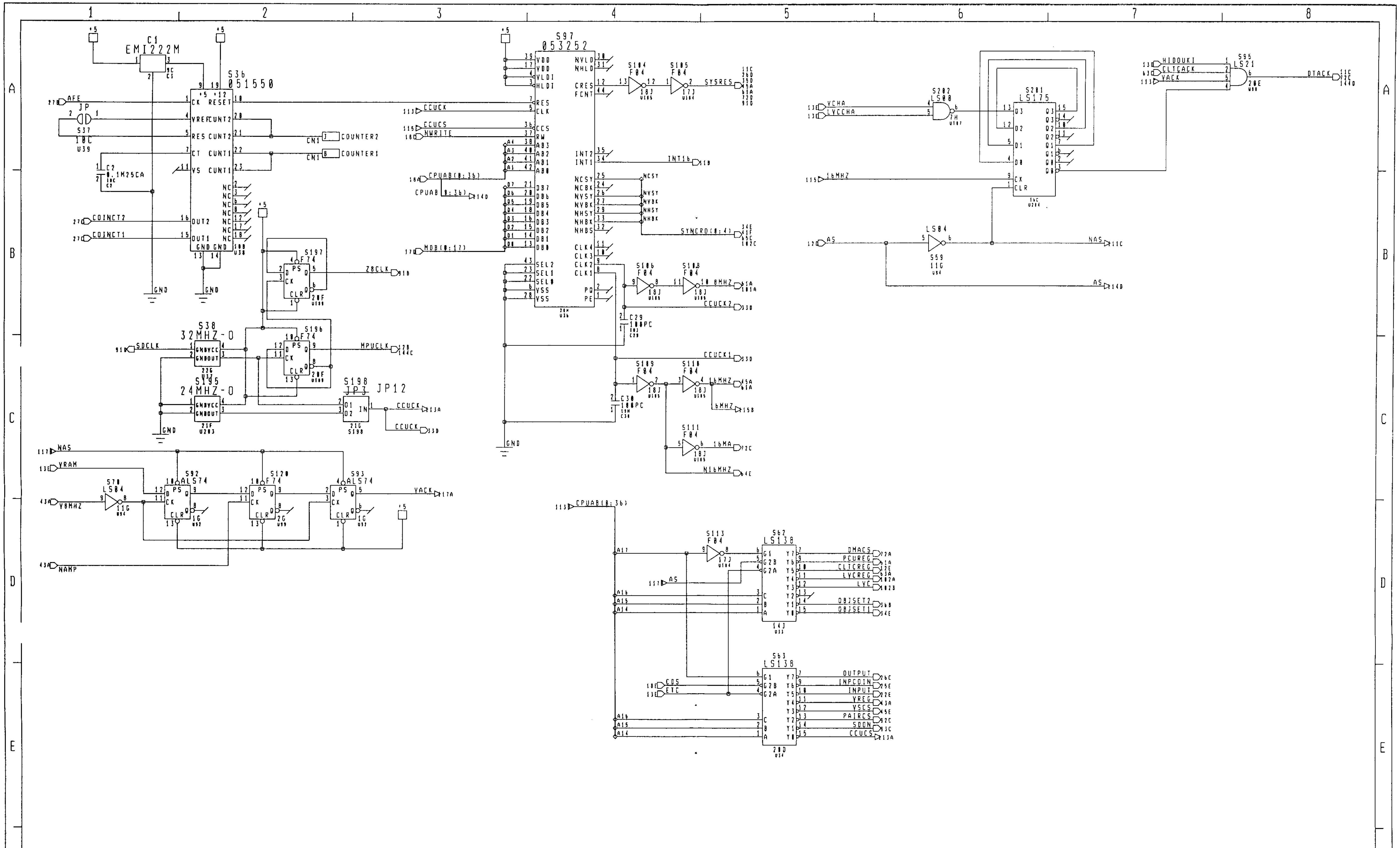
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	DATE	1993.3.2		



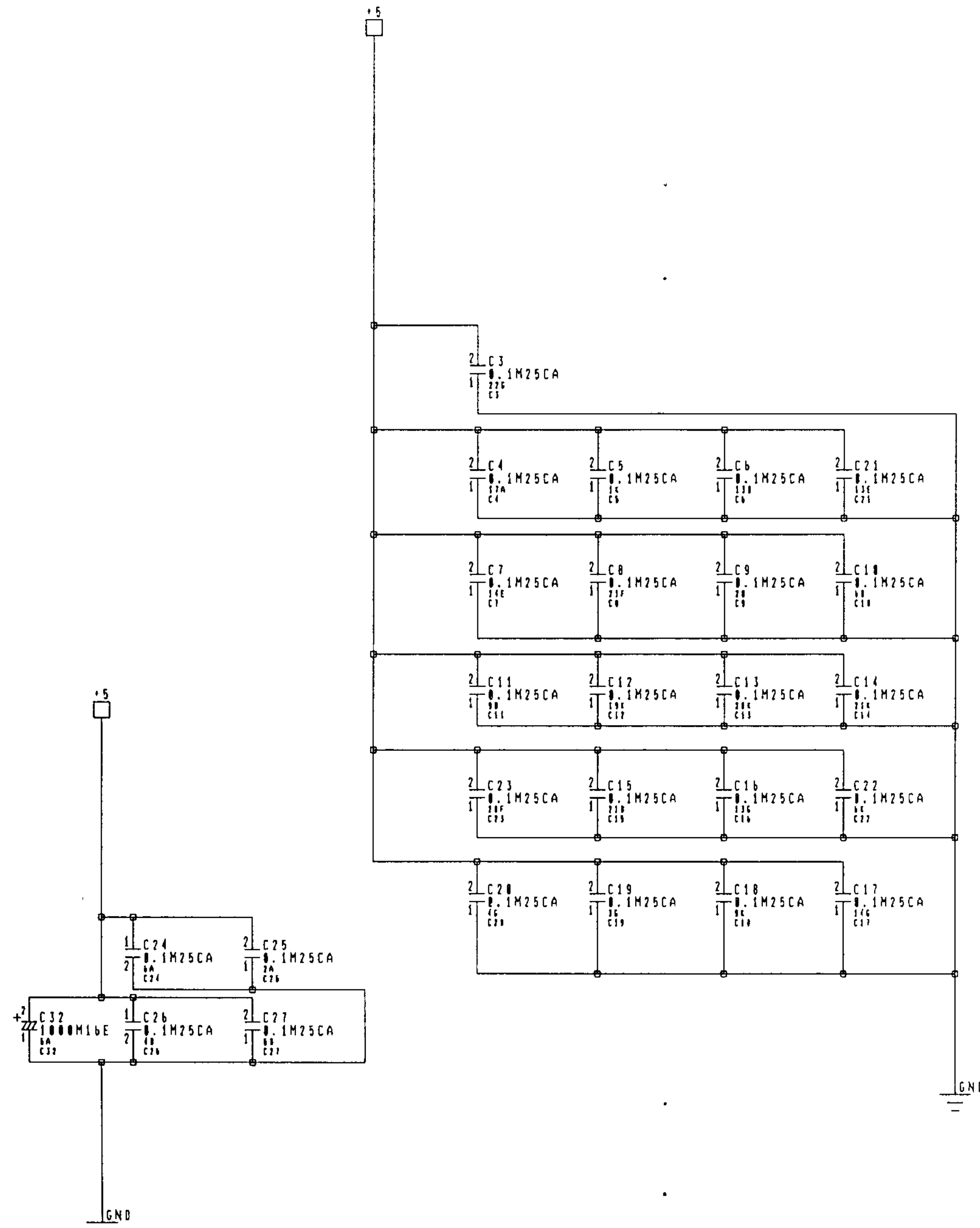
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	SCALE		REG. TYPE	GX224 PWB353401A
	TOLERANCE		SECURITY LEVEL	CONFIDENTIAL
	DATE	1993.3.2		



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		CHECK	Hoshima	PAGE
		APPROVE	H. Ueno	CODE NO.: 353773
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		DATE	1993. 3. 2	



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